



Inventor: FREEDMAN et al
SN 09/437,450/Sheet 1 of 43
Atty. Dkt.: 1579-315

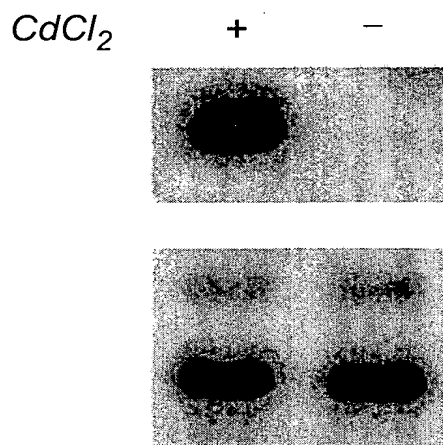


Fig. 1

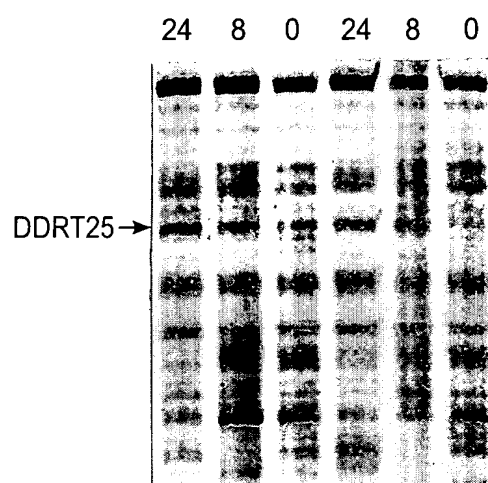


Fig. 2A

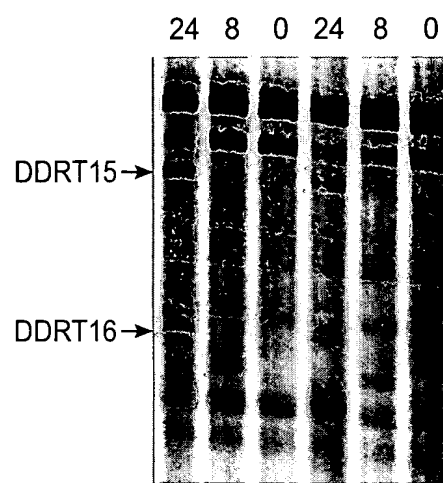


Fig. 2B

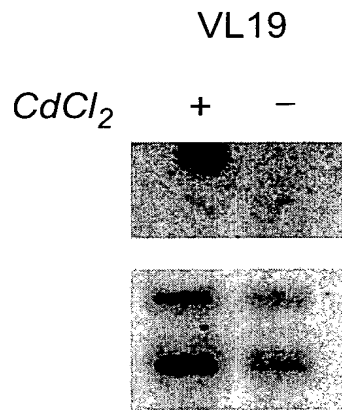


Fig. 3A

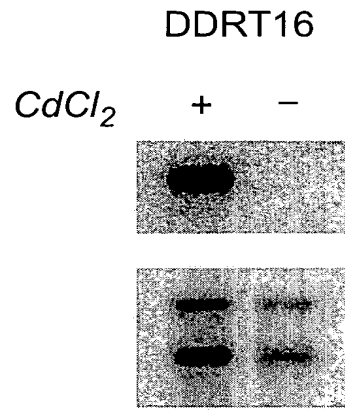


Fig. 3B

Fig. 4A

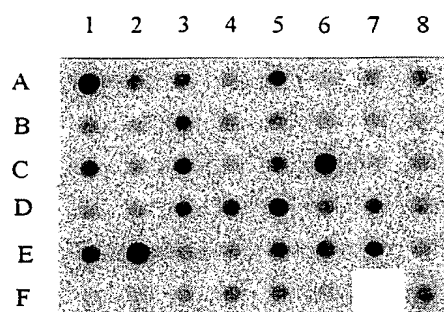


Fig. 4B

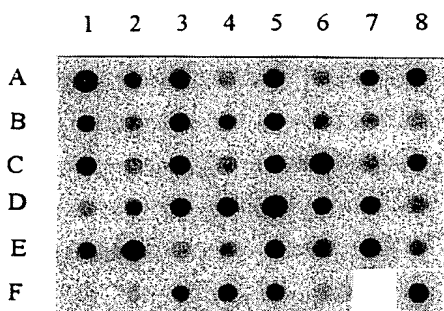
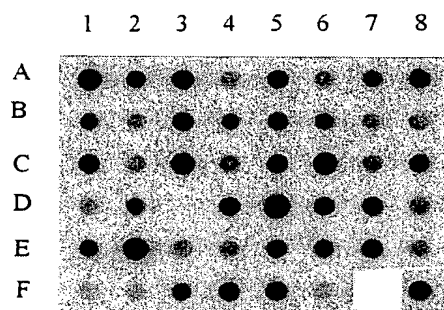


Fig. 4C



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Fig. 5A-1

LOCUS AF072438 284 bp mRNA EST 06-JUL-1998
DEFINITION AF072438 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT21, mRNA sequence.
ACCESSION AF072438
NID g3288944
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 284)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.
FEATURES Location/Qualifiers
source 1..284
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/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT21"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"
BASE COUNT 88 a 61 c 54 g 81 t
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121 cggaaggatg gccttactg tagtaatcga caattggact ctatccacc ggatcactta
181 acctattttg atattaatat gcctgattgg ggatcacagg gttgccccga aaatgtaatt
241 atgaactgaa ttcgaaatgt attataaat tagttttat tggg

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LOCUS AF072437 214 bp mRNA EST 06-JUL-1998
DEFINITION AF072437 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL8, mRNA sequence.
ACCESSION AF072437
NID g3288943
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 214)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by

Fig. 5A-2

differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.
FEATURES Location/Qualifiers
source 1..214
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/strain="N2"
/db_xref="taxon:6239"
/clone="VL8"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"
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61 aggaggccag tgagaaaaaa tgctgtccag ctggatgtaa gggagactgc aagtgtgcaa
121 actgtcattg tgcagagcag aagcagtgcg agacaagacc catcaacacc agggaactgc
181 tgcggctcat taaaatgttt cagagttgaa tcta
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LOCUS AF072436 217 bp mRNA EST 06-JUL-1998
DEFINITION AF072436 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL7, mRNA sequence.
ACCESSION AF072436
NID g3288942
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 217)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
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Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.
FEATURES Location/Qualifiers
source 1..217
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/clone_lib="mRNA from cadmium-responsive gene"

Fig. 5A-3

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    61 gtgaggaggc cagtgaagaaa aaatgctgtc cagctggatg taaggagagac tgcaagtgtg
    121 caaactgtca ttgtgcagag cagaagcagt gcgagacaag acctatcaac accagggaac
    181 tgctgcggct cattaaaatg ttccagagtt gaatcta
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LOCUS   AF072435   217 bp   mRNA           EST    06-JUL-1998
DEFINITION AF072435 mRNA from cadmium-responsive gene Caenorhabditis elegans
          cDNA clone VL15, mRNA sequence.
ACCESSION AF072435
NID       g3288941
KEYWORDS  EST.
SOURCE    Caenorhabditis elegans.
ORGANISM  Caenorhabditis elegans
          Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
          Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
REFERENCE 1 (bases 1 to 217)
AUTHORS   Freedman, J.H. and Liao, H.-C.
TITLE     Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.
          Identification and cloning of new cadmium-responsive genes by
          differential display
JOURNAL   Unpublished (1998)
COMMENT
          Contact: Jonathan H. Freedman
          Nicholas School of the Environment
          Duke University
          Box 90328, Durham, NC 27708-0328, USA
          Email: jonf@duke.edu.
FEATURES             Location/Qualifiers
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                     /tissue_type="whole animal"
                     /dev_stage="mixed population"
BASE COUNT   69 a   37 c   66 g   45 t
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    61 gtgaggaggc cagtgaagaaa aaatgctgtc cagctggatg taaggagagac tgcaagtgtg
    121 caaactgtca ttgtgcagag cagaagcagt gcgagacaag acctatcaac accagggaac
    181 tgctgcggct cattaaaatg ttccagagtt gaatcta
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LOCUS   AF072434   216 bp   mRNA           EST    06-JUL-1998
DEFINITION AF072434 mRNA from cadmium-responsive gene Caenorhabditis elegans
          cDNA clone VL12, mRNA sequence.
ACCESSION AF072434
NID       g3288940
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Fig. 5A-4

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 216)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..216
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/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 69 a 37 c 66 g 44 t

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121 aaactgtcat tgtgcagagc agaagcagtg cgagacaaga cccatcaaca ccagggaact
181 gctgcggctc attaaaatgt ttcagagttg aatcta
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LOCUS AF071399 240 bp mRNA EST 01-JUL-1998

DEFINITION AF071399 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT9A, mRNA sequence.

ACCESSION AF071399

NID g3265144

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 240)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University

Box 90328, Durham, NC 27708-0328, USA

Email: jonf@duke.edu.

Fig. 5A-5

FEATURES Location/Qualifiers

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/tissue_type="whole animal"
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BASE COUNT 81 a 28 c 41 g 90 t

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121 atataaacgt tgccttaatt tatatatgac gttctctatg aatatagcca aatgatcga
181 tattttta ccaaaaatca aacattttg gtatacgac ctcgcctca cggagggtta
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LOCUS AF071398 217 bp mRNA EST 01-JUL-1998

DEFINITION AF071398 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT7, mRNA sequence.

ACCESSION AF071398

NID g3265143

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 217)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
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Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

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/strain="N2"
/db_xref="taxon:6239"
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/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 64 a 38 c 42 g 73 t

ORIGIN

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61 aactgtctat atcattccgc aatcacatt cggatgtct cgaaaaggca ttccaaagt

Fig. 5A-6

121 attggagtca tgtgaaagag ttcgtcatga agtttaccba aaggcatttc atagtgaatt
181 aaattgtcaa actagtagtc agatcaataa aattttc

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LOCUS AF071397 219 bp mRNA EST 01-JUL-1998
DEFINITION AF071397 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT6, mRNA sequence.
ACCESSION AF071397
NID g3265142
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 219)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
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/db_xref="taxon:6239"
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/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 75 a 38 c 34 g 72 t

ORIGIN

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61 cccgtagcaa aaaaatacat gtcgggaaaa tgagaaaaat ggtaataaaa ttttaaaaa
121 aagtatataa ttctccaac aagctactgc atgtcctgt actacaatct tctccgacgg
181 attccactct cgatcgcgga ttcggattct tcatgttg

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LOCUS AF071396 254 bp mRNA EST 01-JUL-1998
DEFINITION AF071396 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT5, mRNA sequence.
ACCESSION AF071396
NID g3265141
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 254)

Fig. 5A-7

AUTHORS Freedman,J.H. and Liao,H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.
FEATURES Location/Qualifiers
source 1..254
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/db_xref="taxon:6239"
/clone="DDRT5"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"
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61 catttgatg atgctcttc acagcattat ccagtgtata ctatcctt ttcgtaagag
121 ttgcaaaa atgtccataa aaagtgtga atgactttg ttcattcga agcatacata
181 cgatcgaaac ggagaaatcg atagatcgaa tcaggataag tggggatact gtattgtcgg
241 atgaaaacat agac
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LOCUS AF071394 165 bp mRNA EST 01-JUL-1998
DEFINITION AF071394 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT47, mRNA sequence.
ACCESSION AF071394
NID g3265139
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 165)
AUTHORS Freedman,J.H. and Liao,H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.
FEATURES Location/Qualifiers
source 1..165
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Fig. 5A-8

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LOCUS   AF071393   154 bp   mRNA           EST       01-JUL-1998
DEFINITION   AF071393 mRNA from cadmium-responsive gene Caenorhabditis elegans
              cDNA clone DDRT41, mRNA sequence.
ACCESSION   AF071393
NID        g3265138
KEYWORDS    EST.
SOURCE      Caenorhabditis elegans.
ORGANISM    Caenorhabditis elegans
              Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
              Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
REFERENCE   1 (bases 1 to 154)
AUTHORS     Freedman,J.H. and Liao,H.-C.
TITLE       Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.
              Identification and cloning of new cadmium-responsive genes by
              differential display
JOURNAL     Unpublished (1998)
COMMENT
    Contact: Jonathan H. Freedman
              Nicholas School of the Environment
              Duke University
              Box 90328, Durham, NC 27708-0328, USA
              Email: jonf@duke.edu.
FEATURES             Location/Qualifiers
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    121 ggagatcaaa aacatgttta cagcttgggt ccta
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LOCUS   AF071392   264 bp   mRNA           EST       01-JUL-1998
DEFINITION   AF071392 mRNA from cadmium-responsive gene Caenorhabditis elegans
              cDNA clone DDRT40, mRNA sequence.
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Fig. 5A-9

ACCESSION AF071392

NID g3265137

KEYWORDS EST.

SOURCE Caenorhabditis elegans.

ORGANISM Caenorhabditis elegans

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;

Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 264)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman

Nicholas School of the Environment

Duke University

Box 90328, Durham, NC 27708-0328, USA

Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..264

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/db_xref="taxon:6239"

/clone="DDRT40"

/clone_lib="mRNA from cadmium-responsive gene"

/tissue_type="whole animal"

/dev_stage="mixed population"

BASE COUNT 90 a 47 c 59 g 68 t

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121 gagagtcctg gtcctcaaat taaattctac gaggcgatca aagaatacga gaaaatggag

181 acaccagatg agcgattaac aaaagcacga gaaattatc gatcatcata tacggttgaa

241 ttccgtcgcg caatcgtcac actc

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LOCUS AF071391 187 bp mRNA EST 01-JUL-1998

DEFINITION AF071391 mRNA from cadmium-responsive gene Caenorhabditis elegans

cDNA clone DDRT4, mRNA sequence.

ACCESSION AF071391

NID g3265136

KEYWORDS EST.

SOURCE Caenorhabditis elegans.

ORGANISM Caenorhabditis elegans

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;

Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 187)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Fig. 5A-10

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

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 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 57 a 22 c 41 g 67 t

ORIGIN

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121 gtgaacactt gttgcggtgg agcccgtatt tagcgagtgg tagttttga tgtgattggt
181 tccaatc

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LOCUS AF071389 267 bp mRNA EST 01-JUL-1998

DEFINITION AF071389 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT37, mRNA sequence.

ACCESSION AF071389

NID g3265134

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 267)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..267
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT37"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 66 a 75 c 54 g 72 t

Fig. 5A-11

ORIGIN

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1  tggctactcca cctacaagtt ctacaagttc tacgagggtg tctgatcga tccattccac
61  aaggctatcc gtcgtaacc agacacccaa tggatcacca agcctagttc acaagcaccg
121  tgagcaaaga ggactcacct ctgctggacg caagttcgtg gactcggaaa gggattgctt
181  ttctctgcta cccgcggagg atcccaacac caaagtttt ccaccgcca accgataaat
241  ctgttattt tattttgtt tgggtt
```

//

LOCUS AF071388 292 bp mRNA EST 01-JUL-1998
DEFINITION AF071388 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT36, mRNA sequence.

ACCESSION AF071388

NID g3265133

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 292)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..292
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT36"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 73 a 57 c 51 g 111 t

ORIGIN

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1  tttttttt ttttccaac ccctcacat aaaggcggaa aaccgattgt tgctgttact
61  tgtgtgtgc gttattccc tgaggatcc atattccgct tctccaatc tctaaagata
121  tacctgaaaa cgagttgtcg tcgaaatact tgatacatgt tgtcttcac ctggtgtatg
181  ttgttcgca aattctcat actagttag ataggattg aatgagctgg caccagtgcaa
241  cttgaactc gaattcaat atttctgta tctgcatta agtgatgaat aa
```

//

LOCUS AF071387 314 bp mRNA EST 01-JUL-1998
DEFINITION AF071387 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT35, mRNA sequence.

ACCESSION AF071387

NID g3265132

KEYWORDS EST.

Fig. 5A-12

SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 314)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
source 1..314
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT35"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 86 a 65 c 56 g 107 t

ORIGIN

1 tctgagctag gaggtccagg aggaaacaac ggaggaggtg ctggaaatgg tggattcgac
61 gatttgatg atttggtcgc cgttcgaa gaactgaaa agattaagta atcatcacc
121 gacgttccat tcattataa ctattgtt ctctccacc caattttt ttcacgtgc
181 tttttgtg tcataaatga gaccccaaaa aactagctgt ttcttagtgc atacgttaa
241 accccttag tcattgata tcattgata cctcattatc cgaaaaacct ttcgacattc
301 atcaactagg tttt

//

LOCUS AF071386 189 bp mRNA EST 01-JUL-1998
DEFINITION AF071386 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT34, mRNA sequence.

ACCESSION AF071386

NID g3265131

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 189)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment

Fig. 5A-13

Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
 source 1..189
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT34"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 61 a 26 c 48 g 54 t

ORIGIN
 1 tctgagctag ggaccgaaat tcacaaatat ccaattgta ctggatgggtg gggatgtgga
 61 cgatttaatg gggacaagcc actgaagtgt atgtatttc attcgtaaa tatgaagatg
 121 gaggagagtg aatggggatt ttgcttcttt tgcaaatgg cctccctatg tacctgaaaa
 181 aaaaaaaaaa
//

LOCUS AF071385 171 bp mRNA EST 01-JUL-1998
DEFINITION AF071385 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT33D, mRNA sequence.
ACCESSION AF071385
NID g3265130
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
 Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 171)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display
JOURNAL Unpublished (1998)
COMMENT
 Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers
 source 1..171
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT33D"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 57 a 44 c 37 g 33 t

ORIGIN
 1 tctgagctag gaaaggacgg agaagatgga gagaacggag ctgctggagc cgctggacca

Fig. 5A-14

61 aagggatctt gcgacctg cccaccacca cgactcccc aggatattaa ttcactctc
121 tctaatttta gtgaatctca ttctaataaa aagccgcccc aaaaaaaaaa a

//

LOCUS AF071383 289 bp mRNA EST 01-JUL-1998
DEFINITION AF071383 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT30, mRNA sequence.
ACCESSION AF071383
NID g3265128
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 289)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
source 1..289
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT30"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 68 a 64 c 63 g 94 t
ORIGIN

1 tttttttt ttgagcgag cgttattat ttgagtcgag ctgggttga gtcgtcagct
61 gaacatgaag attgacaaag aagacgatca gcagcaacag atgcgcagag tcgcattctt
121 tgcgggttgc gtctcaactg cagccgtcat ttcaagcatc gtgactctcc caatgatcta
181 ctcttactct tcaatcttcc caatccatt tgatcattgg aaaccgagtt ctgtaaaact
241 gtgctcgtga tatgtggtgt cgaagttctc cacaagtcag gtgtaccct

//

LOCUS AF071382 162 bp mRNA EST 01-JUL-1998
DEFINITION AF071382 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT3, mRNA sequence.
ACCESSION AF071382
NID g3265127
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

Fig. 5A-15

REFERENCE 1 (bases 1 to 162)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..162
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT3"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 64 a 31 c 18 g 49 t

ORIGIN

1 ctccaccgca acaagtgttc acgtggaaac aacaacgaaa ggaacatcat ctctatctct
61 gctggtttc taatcattgt catttcagct ttaacgctat aatcaacaaa aacagtttat
121 ttatttttaa taaaaattta ttcgtgc aaa aaaaaaaaa aa

//

LOCUS AF071381 140 bp mRNA EST 01-JUL-1998

DEFINITION AF071381 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT29, mRNA sequence.

ACCESSION AF071381

NID g3265126

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 140)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..140
/organism="Caenorhabditis elegans"
/strain="N2"

Fig. 5A-16

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/db_xref="taxon:6239"
/clone="DDRT29"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"
BASE COUNT   52 a   25 c   29 g   34 t
ORIGIN
    1 tagggcctgg ttgtgacaat gtgcactaaa atggggcatg aatcacca gcagagttca
    61 cttacccaaa gtgtacttat taagagtcaa ctgtgaagta tatgagacat ttcagttgcc
    121 tgcccaaaaa aaaaaaaaaa
//

LOCUS   AF071380   308 bp   mRNA           EST    01-JUL-1998
DEFINITION  AF071380 mRNA from cadmium-responsive gene Caenorhabditis elegans
            cDNA clone DDRT28, mRNA sequence.
ACCESSION  AF071380
NID        g3265125
KEYWORDS   EST.
SOURCE     Caenorhabditis elegans.
ORGANISM   Caenorhabditis elegans
            Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
            Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
REFERENCE  1 (bases 1 to 308)
AUTHORS    Freedman,J.H. and Liao,H.-C.
TITLE      Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.
            Identification and cloning of new cadmium-responsive genes by
            differential display
JOURNAL    Unpublished (1998)
COMMENT
    Contact: Jonathan H. Freedman
    Nicholas School of the Environment
    Duke University
    Box 90328, Durham, NC 27708-0328, USA
    Email: jonf@duke.edu.
FEATURES   Location/Qualifiers
    source   1..308
             /organism="Caenorhabditis elegans"
             /strain="N2"
             /db_xref="taxon:6239"
             /clone="DDRT28"
             /clone_lib="mRNA from cadmium-responsive gene"
             /tissue_type="whole animal"
             /dev_stage="mixed population"
BASE COUNT   88 a   70 c   73 g   77 t
ORIGIN
    1 tagttaggca caggatgtac gaggaaattc tactattttc gggctcacc acgaaatcac
    61 aataacccgg atttttagt ggtcccgca cggtgaccta ctggcgcgtc aggcactccg
    121 ccgcgacatt cgccgacacg cctacaatcc acgtgtcaat cgtcagattt gcggatcaat
    181 aatggatgaa aaagggtggaa atacgtatat ggatcatgtt caaaggcatc aagctgaaca
    241 attcgaagag ttgaatcggc gtcgacactt ttgatccaag accgtaagaa attgaaagc
    301 tattgggtg
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LOCUS   AF071379   238 bp   mRNA           EST    01-JUL-1998
```

Fig. 5A-17

DEFINITION AF071379 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT26, mRNA sequence.

ACCESSION AF071379

NID g3265124

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;

Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 238)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by

differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman

Nicholas School of the Environment

Duke University

Box 90328, Durham, NC 27708-0328, USA

Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..238

/organism="Caenorhabditis elegans"

/strain="N2"

/db_xref="taxon:6239"

/clone="DDRT26"

/clone_lib="mRNA from cadmium-responsive gene"

/tissue_type="whole animal"

/dev_stage="mixed population"

BASE COUNT 74 a 43 c 44 g 77 t

ORIGIN

1 tttttttt tttggggg gaaatcacgg ctcggatgc aacagtcttc tctcaattgg

61 caactgtcta ttatccattc cgcaatcaca ttccggatgt tctcgaaaag gacttccaa

121 agttattgga gtactgtgaa agagttcgtc atgaagtta ccaaaggac ttactatgt

181 gaattaaatt gtcaaaactag tagtcagatc aataaaatt tccgcgcgaa aaaaaaaa

//

LOCUS AF071378 324 bp mRNA EST 01-JUL-1998

DEFINITION AF071378 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT25A, mRNA sequence.

ACCESSION AF071378

NID g3265123

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;

Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 324)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by

differential display

JOURNAL Unpublished (1998)

Fig. 5A-18

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..324
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT25A"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 102 a 70 c 73 g 79 t

ORIGIN

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1 tagttaggca caggatgtac gaggaaatc tactatttc ggtctcacc acgaaatcac
61 aataaccggg atttttagt ggtcccgca cgttgaccta ctggcgcg caggcactcc
121 gccgcgacat tcgccgacac gcctacaatc cacgtgtcaa tcgtcagatt tgcggatcaa
181 taatggatgat gaaagggtgga aatacgata tggatcatgt tcaaaggcat caagctgaac
241 aatcgaaga gttgaatcgg cgtcgacaac ttttgatcc aagaccgtaa gaaattgaa
301 agctattggt gaaaaaaaaa aaaa
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//

LOCUS AF071377 272 bp mRNA EST 01-JUL-1998
DEFINITION AF071377 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT24, mRNA sequence.

ACCESSION AF071377

NID g3265122

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 272)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..272
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT24"
/clone_lib="mRNA from cadmium-responsive gene"

Fig. 5A-19

```

        /tissue_type="whole animal"
        /dev_stage="mixed population"
BASE COUNT   91 a   74 c   51 g   56 t
ORIGIN
    1 ttgtactcca cgcagaaaga agaaggtcat ccacaacacc gctactaccg atgacaagaa
    61 gcttcaaagc aatttgaaga aactctctgt caccaacatt ccaggaatcg aggagggtcaa
    121 catgattaag acgatggaac cggtatccac ttaacaacc caaaagtcta aacctctgtt
    181 cccagccaat accttctctg tcacaggatc agccgataac aagtcagatc actgaaatgt
    241 ctcccaggga atgctgaact ggtcagagtc ct
//

LOCUS   AF071395   218 bp   rRNA           INV   30-JUN-1998
DEFINITION   Caenorhabditis elegans strain N2 clone DDRT48, rRNA sequence.
ACCESSION   AF071395
NID        g3265140
KEYWORDS
SOURCE     Caenorhabditis elegans.
ORGANISM   Caenorhabditis elegans
            Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
            Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
REFERENCE   1 (bases 1 to 218)
AUTHORS    Freedman,J.H. and Liao,H.-C.
TITLE      Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.
            Identification and cloning of new cadmium-responsive genes by
            differential display
JOURNAL     Unpublished
REFERENCE   2 (bases 1 to 218)
AUTHORS    Freedman,J.H. and Liao,H.-C.
TITLE      Direct Submission
JOURNAL     Submitted (09-JUN-1998) Nicholas School of the Environment, Duke
            University, Box 90328, Durham, NC 27708-0328, USA
FEATURES    Location/Qualifiers
            source             1..218
                                /organism="Caenorhabditis elegans"
                                /strain="N2"
                                /db_xref="taxon:6239"
                                /tissue_type="whole animal"
                                /dev_stage="mixed population"
                                /note="from cadmium-responsive gene"
                                /clone="DDRT48"
            misc_RNA           1..218
                                /note="similar to Caenorhabditis elegans rDNA tandem
                                repeats"
BASE COUNT   58 a   58 c   38 g   64 t
ORIGIN
    1 tttttttt ttgcacaag cggggactaa aagcaagctt tcatccacc gatgatacaa
    61 ggcgttttta gtaccttagg atcgactgac ccacatccaa ctactgttcc acgtggaacc
    121 cttctccact tcagtttca aggatcgaac ttgaatattt gctactacca tacgatctgc
    181 actgacggaa agtccagccg agcctacctc atagttaa
//

LOCUS   AF071390   238 bp   rRNA           INV   30-JUN-1998
DEFINITION   Caenorhabditis elegans strain N2 clone DDRT38, rRNA sequence.
ACCESSION   AF071390
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Fig. 5A-20

NID g3265135

KEYWORDS

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 238)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 238)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Direct Submission

JOURNAL Submitted (09-JUN-1998) Nicholas School of the Environment, Duke
University, Box 90328, Durham, NC 27708-0328, USA

FEATURES Location/Qualifiers

source 1..238

/organism="Caenorhabditis elegans"

/strain="N2"

/db_xref="taxon:6239"

/tissue_type="whole animal"

/dev_stage="mixed population"

/note="from cadmium-responsive gene"

/clone="DDRT38"

misc_RNA 1..238

/note="similar to *Caenorhabditis elegans* rDNA tandem
repeats"

BASE COUNT 58 a 50 c 58 g 72 t

ORIGIN

1 tttttttt tttgccggg cgggtgttac aaccggcagg gacgtaatca acgtgagctg
61 atgactcgcg ctactaggc attcctcgtt taagggaat aattacaata ccctatccg
121 gacatggaag aattcaacg gttaccgat accttcaac acgggaaaac taccgggtg
181 gacaccatta ggactgacag attgaaagtc ttgtcgatt tgggtggtgg ttgtgcat

//

LOCUS AF071384 253 bp rRNA INV 30-JUN-1998

DEFINITION *Caenorhabditis elegans* strain N2 clone DDRT32, rRNA sequence.

ACCESSION AF071384

NID g3265129

KEYWORDS

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 253)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 253)

AUTHORS Freedman, J.H. and Liao, H.-C.

Fig. 5A-21

TITLE Direct Submission
 JOURNAL Submitted (09-JUN-1998) Nicholas School of the Environment, Duke
 University, Box 90328, Durham, NC 27708-0328, USA
 FEATURES Location/Qualifiers
 source 1..253
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /tissue_type="whole animal"
 /dev_stage="mixed population"
 /note="from cadmium-responsive gene"
 /clone="DDRT32"
 misc_RNA 1..253
 /note="similar to Caenorhabditis elegans rDNA tandem
 repeats"
 BASE COUNT 45 a 60 c 69 g 79 t
 ORIGIN
 1 tagggcctgt tgggtgatgc ttgccggcg cagttctgtc tgcttgatac ttcgggtga
 61 tggcgggacta gtgattgtgc ttcttcgga ccgtttctgg tgtgtgcttg gacctcggtt
 121 ctagtatcct gatcgctcat ctatcaaccg tactgtaacc ggtacgactc agggaatccg
 181 actgtctaataaaaacagag gtgacagatg gtccttcgga acgttaactg tcaactgatt
 241 ctccccagt cac
 //
 LOCUS AF071376 277 bp rRNA INV 30-JUN-1998
 DEFINITION Caenorhabditis elegans strain N2 clone DDRT23, rRNA sequence.
 ACCESSION AF071376
 NID g3265121
 KEYWORDS .
 SOURCE Caenorhabditis elegans.
 ORGANISM Caenorhabditis elegans
 Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
 REFERENCE 1 (bases 1 to 277)
 AUTHORS Freedman, J.H. and Liao, H.-C.
 TITLE Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.
 Identification and cloning of new cadmium-responsive genes by
 differential display
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 277)
 AUTHORS Freedman, J.H. and Liao, H.-C.
 TITLE Direct Submission
 JOURNAL Submitted (09-JUN-1998) Nicholas School of the Environment, Duke
 University, Box 90328, Durham, NC 27708-0328, USA
 FEATURES Location/Qualifiers
 source 1..277
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /tissue_type="whole animal"
 /dev_stage="mixed population"
 /note="from cadmium-responsive gene"
 /clone="DDRT23"
 misc_RNA 1..277

Fig. 5A-22

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      /note="similar to Caenorhabditis elegans rDNA tandem
      repeats"
BASE COUNT   67 a   59 c   73 g   78 t
ORIGIN
    1 tttttttt ttggggggg gcggtgtgta caaagggcag ggacgtaatc aacgtgagct
    61 gatgactcac acttctaggc attcctcgtt taagggaata attacaatac ccattcccga
    121 catggaagaa ttcaacggg ttaccgatac ctttcggca acacgggaaa actcaccgg
    181 tccggacacc attaggactg acagattgaa agctctttct cgatttggtg gttggtggtg
    241 catggccgtt ctagttggt ggagtaccaa tcactag
//

LOCUS   AF071375   216 bp   mRNA           EST   30-JUN-1998
DEFINITION AF071375 mRNA from cadmium-responsive gene Caenorhabditis elegans
          cDNA clone VLS, mRNA sequence.
ACCESSION AF071375
NID       g3265120
KEYWORDS  EST.
SOURCE    Caenorhabditis elegans.
ORGANISM  Caenorhabditis elegans
          Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
          Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
REFERENCE 1 (bases 1 to 216)
AUTHORS  Freedman, J.H. and Liao, H.-C.
TITLE     Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.
          Identification and cloning of new cadmium-responsive genes by
          differential display
JOURNAL   Unpublished (1998)
COMMENT
          Contact: Jonathan H. Freedman
          Nicholas School of the Environment
          Duke University
          Box 90328, Durham, NC 27708-0328, USA
          Email: jonf@duke.edu.
FEATURES             Location/Qualifiers
     source            1..216
                       /organism="Caenorhabditis elegans"
                       /strain="N2"
                       /db_xref="taxon:6239"
                       /clone="VLS"
                       /clone_lib="mRNA from cadmium-responsive gene"
                       /tissue_type="whole animal"
                       /dev_stage="mixed population"
BASE COUNT   69 a   37 c   66 g   44 t
ORIGIN
    1 tagcaagtgc ggagacaaat gtgaatgcag tggagacaag tttgtgaga agtactgctg
    61 tgaggaggcc agtgagaaaa aatgctgtcc agctggatgt aaggagact gcaagtgtgc
    121 aaactgtcat tgtcgagagc agaagcagtg cgagacaaga cccatcaaca ccagggaact
    181 gctgcggctc attaaaatgt ttcagagttg aatcta
//

LOCUS   AF071374   356 bp   mRNA           EST   30-JUN-1998
DEFINITION AF071374 mRNA from cadmium-responsive gene Caenorhabditis elegans
          cDNA clone VL9, mRNA sequence.
ACCESSION AF071374
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Fig. 5A-23

NID g3265119
KEYWORDS EST.
SOURCE Caenorhabditis elegans.
ORGANISM Caenorhabditis elegans
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
REFERENCE 1 (bases 1 to 356)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
source 1..356
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="VL9"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 126 a 70 c 55 g 105 t

ORIGIN

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1 caatcgatga gtatcctcgt acaattaatg catgatgcaa ttggaaatat tccgaggtag
61 gtaaacggg gaacatcacg agatagatga atacagcgga tatcatatag gcacgcagaa
121 tatcaataaa attttcaaattttcaaaata tcataacgat tataacacgt agcaggggaat
181 tttaaagcca ctgaaataaa tatagaataa tatatacaga cacacacaat ctgatttca
241 gaacatttc agtaacgacg ttgaacttt ttgaagatt tcgccgagcc ttgatcact
301 ttgcagtca caattccac aactttctt tctctctct cctctacac gattgc
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//

LOCUS AF071373 199 bp mRNA EST 30-JUN-1998
DEFINITION AF071373 mRNA from cadmium-responsive gene Caenorhabditis elegans
cDNA clone VL3A, mRNA sequence.

ACCESSION AF071373

NID g3265118

KEYWORDS EST.

SOURCE Caenorhabditis elegans.

ORGANISM Caenorhabditis elegans

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 199)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Fig. 5A-24

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
source 1..199
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL3A"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 55 a 31 c 20 g 93 t

ORIGIN

1 taaactctat gtttattgt ttttcaaatttcaaattga aaattgaaac ttcaatttg
61 attagagtct ttgtggttg actcctttt ttcatggaac atcttttacg tacgtcatac
121 ttgtgtac acattacaa atgtgtttt gtaattatat gtaacaaatt tctatgtaca
181 cctcatctca tctctctat

//

LOCUS AF071372 326 bp mRNA EST 30-JUN-1998
DEFINITION AF071372 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone VL21A, mRNA sequence.

ACCESSION AF071372

NID g3265117

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 326)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
source 1..326
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL21A"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 76 a 61 c 59 g 130 t

Fig. 5A-25

ORIGIN

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1 cgtctccctt tttacttac ttgtagggtgc gtcttgtaa ttgtacgtac ttatattag
61 caaacctctg gtgttacctc tgccttttg taaaattgt tacacacttt cttttggca
121 gtaaaagttg ttagcacac ttaacactc tgccactacc aaggtaatag tgagcccatc
181 gaggtttat aaatgtcctt gatagttta agtgtggag gatcgagcta ctttggtag
241 ggaaagccgt gttctgtc ttgtttgt cgatgatta cccaactatt tgatatttg
301 attaccgga ttataata cacc
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//

LOCUS AF071371 147 bp mRNA EST 30-JUN-1998
DEFINITION AF071371 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL20B, mRNA sequence.

ACCESSION AF071371

NID g3265116

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 147)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..147
/organism="*Caenorhabditis elegans*"
/strain="N2"
/db_xref="taxon:6239"
/clone="VL20B"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 54 a 27 c 22 g 44 t

ORIGIN

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1 tggcaatata cctagaaaga gtaaatatta tgacgtggca ataatacaga agcagtccga
61 actacaactc acgaaacatt ttgaaagtt accctctgat ttctttgaa tgtttgtct
121 cacacaataa agaaaattct accgtac
```

//

LOCUS AF071370 285 bp mRNA EST 30-JUN-1998
DEFINITION AF071370 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL19, mRNA sequence.

ACCESSION AF071370

NID g3265115

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

Fig. 5A-26

ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 285)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
source 1..285
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="VL19"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 91 a 46 c 52 g 96 t

ORIGIN
1 cgtggcaata cacagaatat acacattgag atgggtcgaa tggcaaagag aagtggtg
61 ctaatcattc tatatagcac aacgcaaata ataattcga tggcgcgaa ttgtgatg
121 tgaatggaat taacaaaatt ttctaacgt cttcattccg agtaatttt cgtttccct
181 ccactttcg atttatattg ttcttaga aaaagtatt attgcatcgg gtgctcattg
241 tcttgtgta gaataaaac tcgttcactt cccaaaaaaa aaaaa
//

LOCUS AF071369 216 bp mRNA EST 30-JUN-1998
DEFINITION AF071369 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL13, mRNA sequence.
ACCESSION AF071369
NID g3265114
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 216)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA

Fig. 5A-27

Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..216
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL13"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 69 a 37 c 66 g 44 t

ORIGIN

1 tagcaagtcg gagacaaatg tgaatgcagt ggagacaagt gttgtgagaa gtactgctgt
61 gaggaggcca gtgagaaaa atgctgtcca gctggatga agggagactg caagtgtgca
121 aactgtcatt gtgcagagca gaagcagtgc ggagacaaga cccatcaaca ccagggaact
181 gctgcggctc attaaaatgt ttcagagttg aatcta

//

LOCUS AF071368 142 bp mRNA EST 30-JUN-1998

DEFINITION AF071368 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone VL11, mRNA sequence.

ACCESSION AF071368

NID g3265113

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

 Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 142)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

 Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..142
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL11"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 45 a 21 c 23 g 53 t

ORIGIN

1 gtgctggagt tgtttgtatt tcagaataaa taaaataaaa tatgattga gtagaatatt
61 aaaataaagt ccttcacatt aaattatcaa ttgcttgccc tcgaatatct tccagctggt
121 gattgcattc gttcattcct tc

Fig. 5A-28

//

LOCUS AF071367 84 bp mRNA EST 30-JUN-1998
DEFINITION AF071367 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL10, mRNA sequence.
ACCESSION AF071367
NID g3265112
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 84)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.
FEATURES Location/Qualifiers
source 1..84
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="VL10"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"
BASE COUNT 29 a 10 c 27 g 18 t
ORIGIN
1 tagcaagtgc ggagacaaat gtgaatgcag tggagacaag tgttgtgaga agtactgctg
61 tgaggattcc agtgagaaaa aatc

//

LOCUS AF071366 217 bp mRNA EST 30-JUN-1998
DEFINITION AF071366 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL1, mRNA sequence.
ACCESSION AF071366
NID g3265111
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 217)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

Fig. 5A-29

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..217
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL1"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 69 a 37 c 67 g 44 t

ORIGIN

1 tagcaagtc ggagacaaat gtgaatgcag tggagacaag tttgtgaga agtactgctg
 61 tgaggaggcc agtgagaaaa aatgctgtcc agctggatgt aaggagact gcaagtgtgc
 121 aaactgtcat tgtgcagagc agaagcagtg cggagacaag acccatcaac accaggaac
 181 tgctgcggt cattaaaatg ttcagagtt gaatcta

//

LOCUS AF071365 292 bp mRNA EST 30-JUN-1998

DEFINITION AF071365 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT22, mRNA sequence.

ACCESSION AF071365

NID g3265110

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 292)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..292
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT22"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"

Fig. 5A-30

/dev_stage="mixed population"
BASE COUNT 101 a 60 c 50 g 81 t
ORIGIN

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1  tggctactcca caccgacaaa tacatttagt ttacaagcc gccacgcgac acgcaacgcc
61  gtaaatctac caaggtacaa caacaacatg tcaagcacag acccatatct tattgtgcg
121 gaacgagatg gcctctactg tagtaatcga caattggact cttatccacc ggatcactta
181 acctatttg atattaatat tcctattggg atcacagggt ttgccgaaa atgtaattat
241 gaactgaatt gaaatgtatt ataaattagt tttattggg aaaaaaaaaa aa
```

//

LOCUS AF071364 188 bp mRNA EST 30-JUN-1998
DEFINITION AF071364 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT21D, mRNA sequence.

ACCESSION AF071364

NID g3265109

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 188)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..188
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT21D"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 44 a 31 c 51 g 62 t
ORIGIN

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1  tatagggttaa gtgatccggt ggataagagt ccaattgtcg attactacag tagaggccat
61  ctgcttcgcg acaaataaga tatgggtctg tgcttgacat gttgtgttg tacctgggt
121 agattacgg cagttgcgtg tcgttggcgg cttgtaaac taaatgtatt ttccgtgtg
181 gagtacca
```

//

LOCUS AF071363 289 bp mRNA EST 30-JUN-1998
DEFINITION AF071363 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT20, mRNA sequence.

ACCESSION AF071363

NID g3265108

Fig. 5A-31

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 289)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..289
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT20"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 63 a 56 c 75 g 95 t

ORIGIN

1 tttttttt tttgtacat tatggcaaat ggaggcactg tctggttcg tggggtcatg
61 gtgcattgga tcatgtata tcctatcctg gcttctaate ccaatgcgtt tacagtcag
121 tgggcttgaa cgggcctagc tgagcttgga caaagttcct tgacagtacg ggctgacaag
181 ctgacagtc agaaattagg cactgtggg ctacaggtgc tcgtaattat ttgagagtt
241 ctgggcttcc ggactttac taggctaate taagacaact gggctctaa

//

LOCUS AF071362 214 bp mRNA EST 30-JUN-1998

DEFINITION AF071362 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT2, mRNA sequence.

ACCESSION AF071362

NID g3265107

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 214)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment

Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

Fig. 5A-32

FEATURES Location/Qualifiers

source 1..214
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT2"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 77 a 37 c 40 g 60 t

ORIGIN

1 aaatcatggc ggcggatgca acagtcttct caattggcaa ctgtctatat cattccgcaa
61 cacatttcgg atgtctcga aaaggacttc ccaaagttat tggagtactg tgaaagagtt
121 cgtcatgaag ttcccaaag gactttacta tgtgaattaa attgcaaac tagtagtcag
181 atcaataaaa tttacgtgg aaaaaaaaaa aaaa

//

LOCUS AF071361 322 bp mRNA EST 30-JUN-1998

DEFINITION AF071361 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT19, mRNA sequence.

ACCESSION AF071361

NID g3265106

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 322)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..322
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT19"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 102 a 77 c 70 g 73 t

ORIGIN

1 taggtgaccg tagagaagcc cagatatatta aaatctaaag ggaaactgtt tgaccagaag

Fig. 5A-33

61 attagagccc agttgtctta gatagcctag taaaagtccg gaagcccaga actctcaaaa
121 taattacgag cacctgtagc ccacaagtgc ctaattctg actgtcaagc ttgtcgaccc
181 gtactgtcaa ggaactttgt caagctcagc taggcccgtt caagcccaca tgactgtaaa
241 cgattcggga ttagaagcca ggataggata tccatgatcc aatgcacat gacccacgga
301 accagatgtg ctcatcat ag

//

LOCUS AF071360 228 bp mRNA EST 30-JUN-1998
DEFINITION AF071360 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT18, mRNA sequence.

ACCESSION AF071360

NID g3265105

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 228)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..228
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT18"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 70 a 49 c 20 g 89 t

ORIGIN

1 tttttttt ttccccatt catcacacac tatcatgtt tatattcaga cctattacct
61 gtccagaaaa actgagctga aaaaatcccg gacgagcagc tccttcacat tcaaatctt
121 ccatcatc cccactcaat tcattgtt ttgtcttgat ttcaaat ttgccttat
181 tattttattg cttaaattaag aaaactgtta cttgcaaaa aaaaaaaa

//

LOCUS AF071359 255 bp mRNA EST 30-JUN-1998
DEFINITION AF071359 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT1, mRNA sequence.

ACCESSION AF071359

NID g3265104

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Fig. 5A-34

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 255)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
source 1..255
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT1"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 113 a 25 c 51 g 66 t

ORIGIN
1 atcattcaag aaagctatta tcagaaaaca taaatgacat agatcaagtg taaatcacat
61 atatataaag tggataaata tatatagtta aacggataag gaaattaatt aatgaatttt
121 gaaactggca gcgaaggatg aacagggaaa ggcacatgtt aaaataaatg aatgtgtata
181 attcgtgaa gagttagtta tgtaggtga tggcagccat gcagaatgag ccattgttcc
241 gaaaaaaaaa aaaaa
//

LOCUS AF071358 433 bp mRNA EST 30-JUN-1998
DEFINITION AF071358 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT17, mRNA sequence.
ACCESSION AF071358
NID g3265103
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 433)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

Fig. 5A-35

FEATURES Location/Qualifiers

source 1..433
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT17"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 149 a 63 c 83 g 138 t

ORIGIN

1 tggactaag ggccaataac tgagctttg cacggcggca tcaatgataa agagaaacta
61 ttttgacgg taaaataac caaattaca cggcgagtc aatcaaaaat tctcatctgg
121 aacagcaaag tacatcggag aattgctgga aggaagcact gatgaaacta aattaactgc
181 tggatgata ggaaaaacgt caagattgac gtggagtgg agagaaggac tatgtttgga
241 tggttactaa gattttgtaa ctggtgacaa taaggacatc acttttctaa ctaacttaa
301 tctttttta cttctttct tctgaattaa ttgtttta aggcgaattc tatgtttcag
361 aatttatta cgtttgctt tcatgttta attgtaaag taagcaattt ttcaccgta
421 aaaaaaaaa aaa

//

LOCUS AF071357 933 bp mRNA EST 30-JUN-1998

DEFINITION AF071357 mRNA from cadmium-responsive gene *Caenorhabditis elegans*

 cDNA clone DDRT16FC, mRNA sequence.

ACCESSION AF071357

NID g3265102

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

 Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;

 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 933)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

 Contact: Jonathan H. Freedman

 Nicholas School of the Environment

 Duke University

 Box 90328, Durham, NC 27708-0328, USA

 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..933
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT16FC"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 275 a 190 c 171 g 297 t

ORIGIN

Fig. 5A-36

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1 catgcatctt tttttttt ttttttta ctgtctcaag tatgttgat tcatgtttga
61 ttattactgc tgcgctgttt ggagccgctg tcatttactt gaaaaatttc ttcactgttc
121 ctagcattaa accaaaacct gatattcaca aaaaagacta caaaaaggat gtagtctatc
181 tgtatcagat gaagagactc aagaactgtc cgaactgtc ccccttctgc atgaaaatcg
241 agattctttg tagaatcttc aagattcctt acgagattat cacatgcacc tctgaacgct
301 ctcggaatgg attggtccct ttcgttgaac tcaatggaga gcacattgct gattctgac
361 ttatcgaaat gcgcttgaga tcacatttta aaattccgtc gcttccaact gagctggaaa
421 ctcaatctgt tgccttaagc aagttgcag atcaccattt gttcttcgta cttatacgat
481 ttaaaattgc tgtcgacgaa ttctacaaaa ccattatcga aataatcggt ctcccaacct
541 tctgaattt ccttctcatg ccccttttga aggctataat cgggaaaaat gtctacaaca
601 aatgtcaggg agccattgga gattttgaat tgagttagct cgacgagatt cttcacagag
661 atttgcgaat cgtagagaac accttgcca agaaaaagt tctttcggg gaggaatca
721 cggcggcgga tgcaacagtc ttcttcaat tggcaactgt ctattatcca ttccgcaatc
781 acattcgga tgttctgaa aaggacttcc caaagtatt ggagtactgt gaaagagttc
841 gtcatgaagt ttacccaaag gactttacta tgtgaattaa attgtcaaac tagtagtcag
901 atcaataaaa ttctacgtgg caaaaaaaaa aaa
  
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LOCUS AF071356 238 bp mRNA EST 30-JUN-1998
 DEFINITION AF071356 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT16, mRNA sequence.

ACCESSION AF071356

NID g3265101

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 238)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

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source      1..238
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             /strain="N2"
             /db_xref="taxon:6239"
             /clone="DDRT16"
             /clone_lib="mRNA from cadmium-responsive gene"
             /tissue_type="whole animal"
             /dev_stage="mixed population"
  
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BASE COUNT 77 a 42 c 45 g 74 t

ORIGIN

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1 tttttttt ttgggagga aatcacggcg gcggatgcaa cagtctctc tcaattggca
61 actgtctatt atccattccg caatcacatt tcggatgttc tcgaaaagga ctcccaaag
121 ttattggagt actgtgaaag agttcgtcat gaagtttacc caaaggactt tactatgtga
  
```


Fig. 5A-37

181 attaaattgt caaactagta gtcagatcaa taaaattcta cgtggcaaaa aaaaaaaa
//

LOCUS AF071355 248 bp mRNA EST 30-JUN-1998
DEFINITION AF071355 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT15, mRNA sequence.
ACCESSION AF071355
NID g3265100
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 248)
AUTHORS Freedman, J.H. and Liao, H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers
source 1..248
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT15"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 67 a 46 c 31 g 104 t

ORIGIN

1 tttttttt ttgcgatgt tgtaacta atattatta attttctta attttcttg
61 taagttgt atttatagg ttttgagatt ttttgctg taattttgca actgtgattc
121 atgtatgac tatatgaacc gaaacccct cccgtcatc acaacagtta gtaaaacatt
181 ttaatccat atttctatt cccaacactc ttacagggtt tgcatcagca gcagcagtg
241 aaacacaa
//

LOCUS AF071354 226 bp mRNA EST 30-JUN-1998
DEFINITION AF071354 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT12, mRNA sequence.
ACCESSION AF071354
NID g3265099
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 226)

Fig. 5A-38

AUTHORS Freedman,J.H. and Liao,H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.
FEATURES Location/Qualifiers
source 1..226
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT12"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"
BASE COUNT 68 a 38 c 35 g 85 t
ORIGIN
1 tttttttt tttgtaaca aagaactgag cactctatgg ttatcaagt ctatatgtat
61 ccgtgatgcc tactgtatcg tacatccatc tcgatcgtaa tgcattattg atcatgagtt
121 cccaaaggtc ttaatcttga caaagggtgca atagatatat atccttatt ggccactatat
181 atatgttcag aattatgact gatcgatata tatgatcaaa gttaca
//
LOCUS AF071353 212 bp mRNA EST 30-JUN-1998
DEFINITION AF071353 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT10, mRNA sequence.
ACCESSION AF071353
NID g3265098
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 212)
AUTHORS Freedman,J.H. and Liao,H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
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JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.
FEATURES Location/Qualifiers
source 1..212
/organism="Caenorhabditis elegans"
/strain="N2"

Fig. 5A-39

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/db_xref="taxon:6239"  
/clone="DDRT10"  
/clone_lib="mRNA from cadmium-responsive gene"  
/tissue_type="whole animal"  
/dev_stage="mixed population"  
BASE COUNT   68 a   35 c   34 g   75 t  
ORIGIN  
    1 ttcgatacag gaactacatt tacatctggt tcaacatata aacaatacat aacatactca  
   61 atccttcagg ctctgaagga ttttgagtgc gatatactgt aacaagctcg ggaaacataa  
  121 gtacattttt tggagctatc ttttatggt gcgcctttct ttgtctctt tgaatgagtt  
  181 ttgaaatgaa ttgtctgtgc aaaaaaaaaa aa  
//
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